PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<u>see an example</u>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below. Some articles will have been accepted based in part or entirely on reviews undertaken for other BMJ Group journals. These will be reproduced where possible.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Job Stress and Burnout in Hospital Employees: Comparisons of
	Different Medical Professions in a Regional Hospital in Taiwan
AUTHORS	Chou, Li-Ping; Li, Chung-Yi; Hu, Susan

VERSION 1 - REVIEW

REVIEWER	Jens Klein
	University Medical Center Hamburg-Eppendorf
	Department of Medical Sociology
REVIEW RETURNED	16-Oct-2013

GENERAL COMMENTS	The study is an important contribute to the research of psychsocial stress and burnout in a hsopital setting. The text is easy to understand clearly structured. I just have some commentaries below that are in my opinion worth to consider (especially the first one).
	No.6/12 (outcomes/conclusions): The demand-control-(support) model assumes four different work situations: No (or low) strain, passive job, active job and high strain (or job strain). There is an explicit difference between an "active job" and "high strain/job strain". In the result and discussion chapter as well as in Table 4, the authors merge active job and high strain into one category. In the original model, it is assumed that an active job could benefit someone's health. Although studies found out that an active job can also harm your health, it is a work situation that should be treated seperately to the situation of an high strain/job strain situation. The conditions of these two work situations are quite different.
	Introduction: While reading the manuscript, it is obvious that next to nurses the "physician assistant" is an important job category in terms of stress and burnout. Finally, in the discussion chapter the job characteristics are well described. As it is not naturally that every reader knows these special occupation, one or two short sentences about that job in the introdutioction chapter would be helpful.
	References: The reference 18 on page 8 is placed incorrectly as it does not refer to burnout but to job strain. When the authors compare the prevalences and mean scores of burnout with other studies, they only cite studies that show similar or lower scores but not higher ones (e.g. Fuß et al. 2008 or Klein et al. 2010). On page 13/line 54, the publication date is missing in the citation.
	Generally: This is a cross-sectional design. The autors should be careful to write constantly about "influences" as these are just

REVIEWER	Professor Ann Fridner
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associations.

	Department of Psychology, Stockholm University
REVIEW RETURNED	13-Dec-2013

GENERAL COMMENTS	The only comment I have is to use physicians or doctor all a over the manuscript.
	I am glad I reviewed your article. It is so clear written, and interesting to have data from one hospital. Maybe you could have written more on suggested interventions on behalf of the hospital to lower the levels of burnout.

VERSION 1 – AUTHOR RESPONSE

Reviewer 1:

Dear Dr. Klein:

Thank you very much for reviewing our article. Your suggestions are very helpful for us to clarify the content of the study. We have revised our manuscript according to your comments and would like to describe our change as follows:

#1. About merging active and high strain together in Table 4 Ans:

We totally agree your comment about the different effects of active and high strain on health. Most of the published papers have compared high strain with non-high strain (the other 3 categories). Thus, we re-calculated the data and showed only the percentages of high strain in Table 4. Accordingly, we modified the statement of related sentences in the result section and deleted the words of "active strain" in the discussion section. For example:

Page 12, 2nd paragraph: Compared with the other professions, nurses as a group had the characteristics of youngest age, were nearly females (99.5%), most engaged in shift work (74%), as well as had the highest percentage (27.9%) perceiving high strain. Physician assistants as a group had the highest over-commitment (44.1%) and lowest support (60.3%). They were also characterized as having a high percentage of females (91.2%), long work hours, and second highest percentage (27.2%) experiencing high strain. Physicians as a group had the features of being the oldest on average and had the highest percentage of longer work hours (48.5%) but very few perceived high strain (2.0%). Medical technicians and administrative staff had a similar percentage of female members, social support, longer work hours, and those testing for high strain (14.4%, 14.7%).

#2. To introduce "physician assistants" in the introduction section.

Ans:

It is a great suggestion. We added some sentences in introduction section to introduce this special profession, as follows:

Page 6, 2nd paragraph: Although many studies have discussed the stress and burnout situation for physicians and nurses, there has been no research on other medical professions, such as physician assistants, medical technicians and administrative staff, who work together as a team in hospitals. In particular, physician assistants have been recruited in most hospitals in Taiwan. They work together with physicians for direct patient care but their stress and burnout situation have not been reported yet.

#3. Reference part: The reference 18 on page 8 is placed incorrectly.

You are right. Thank you for pointing out this mistake. We have cited a new article (Yeh WY, 2008) as reference 18 and the original reference 18 was changed to reference 19.

#4. Only cite studies that show lower burnout score

Thank you very much for this comment. We have added two articles that you mentioned (Fuß et al. 2008 or Klein et al. 2010, new reference 8, 28) into the reference for comparison. Our nurse's burnout score (60.1) and prevalence of high burnout (73.2%) are still higher than German physicians (Score of female physicians is 51.05 in Fuß study; Percent of high burnout in women surgeons in your study is 58.3%).

Page 13, 3rd paragraph: The mean burnout score and percentage of high burnout in nurses (60.1 and 73.2% in this study) was shown to be much higher than other studies using similar instruments.8, 15, 16, 27, 28

#5. On page 13/line 54, the publication date is missing in the citation.

Ans:

We have checked and corrected all references.

#6. Should be careful to write about "influences" as these are just associations Ans:

Yes, thank for your notification. We have changed the word "influencing" into "correlating, associated or related" throughout the whole manuscript.

Reviewer 2:

Dear Dr. Fridner:

Thanks so much for supporting our work. Your suggestions are very constructive. We have revised our manuscript according to your comments. All the words "Doctors" in our manuscript have been changed into "physicians". Regarding the suggested interventions, we have added one more paragraph in the discussion section, as follows:

For example, the results showed burnout to be higher in younger individuals, as well as in those who work overtime, perceive high strain, and in those who frequently over-commit or receive low social support. Therefore, we suggest that the target group of stress reduction programs should focus on younger professionals first and the intervention strategies must cover individual/group and environmental levels. The former includes communication skill training, stress and time management, and senior-junior support groups, etc. The later includes suitable worksheet, reasonable welfare, and healthy working environment, etc.